NEW YORK STATE
DEPARTMENT OF PUBLIC WORKS
BUREAU OF MATERIALS

THICKNESS OF BITUMINOUS CONCRETE PAVEMENTS

Location of Cores

For bituminous concrete pavements constructed under contracts, the transverse location of all cores shall be within the middle third of each lane. Longitudinally, cores shall be taken at the rate of one (1) per lane mile. Acceleration and deceleration lanes, when associated with ramps, shall be considered as part of the ramp and the same coring rate shall be used whenever applicable. Each ramp shall have a minimum of one (1) core location.

Core Measurement and Tolerances

Each item thickness of the bituminous concrete pavement shall be acceptable if the measurement is the nominal dimension plus or minus the specified tolerance for the individual item. Total thickness of the pavement, the sum of all specified heights of bituminous concrete items, shall be measured using a tolerance for the total pavement thickness. The tolerances for the items and the total pavement thickness, as stated in the General Specifications of January 2, 1962 (Second Printing), are as follows:

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Nominal Thickness, ITEM	Tolerance
4 inches or less	± 1/4"
Greater than 4 inches	± 1/2"

Nominal Thickness, TOTAL PAVEMENT	Tolerance
4 inches or less	± 1/4"
Greater than 4 inches up to and including 8 inches	± 1/2"
Greater than 8 inches	± 5/8"

An example showing the nominal thicknesses and the allowable tolerances is shown in Figure #3.

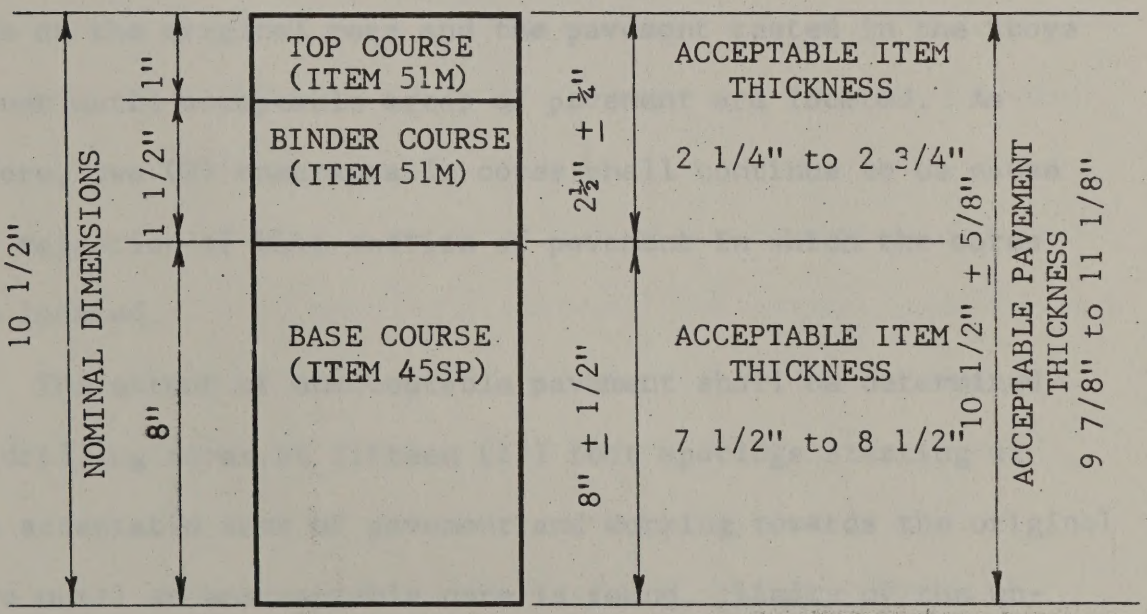
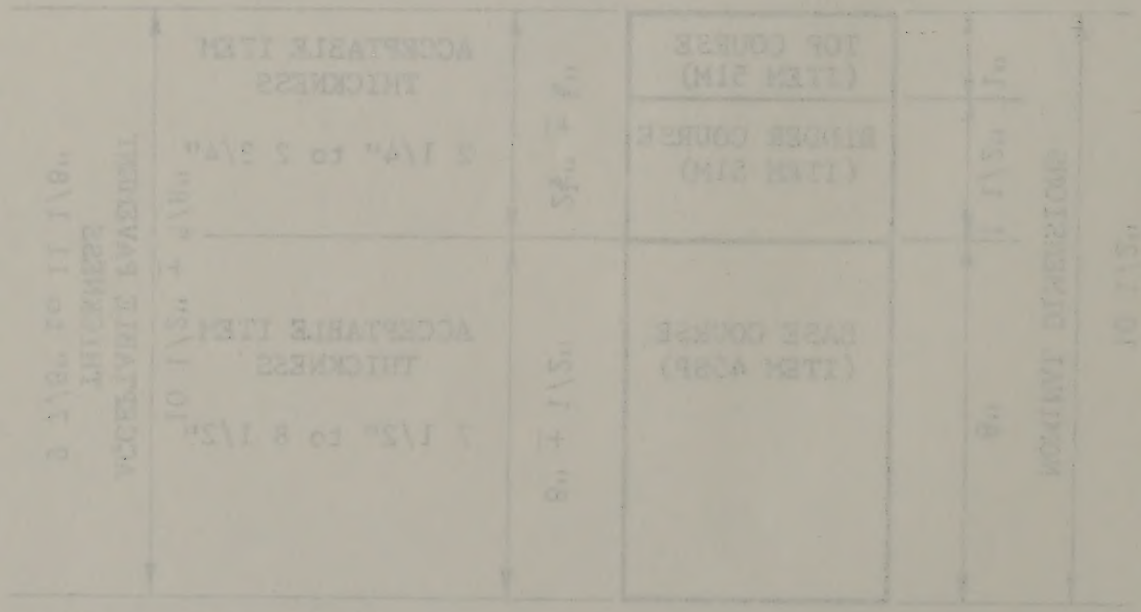


FIGURE 3

Truing and leveling courses shall not be considered when measuring the pavement thickness. However, this item should be noted on the Pavement Core Record whenever encountered.



Rejection of Pavement and Location of Check Cores

An original core is defined as the first core taken at each lane-mile interval. If an original core is unacceptable by field measurement, a maximum of two (2) additional cores shall be drilled on the longitudinal center line of the lane, one on each side of the original core, at a distance of fifteen (15) feet. Two (2) unacceptable cores of the three (3) shall be cause for rejection of that area of pavement.

When an unacceptable area of pavement is encountered, cores shall be drilled at sixty (60) foot intervals on each side of the original core and the pavement tested in the above manner until acceptable areas of pavement are located. As before, two (2) unacceptable cores shall continue to be cause for rejection of that section of pavement in which the cores are located.

The extent of unacceptable pavement shall be determined by drilling cores at fifteen (15) foot spacings starting at the acceptable area of pavement and working towards the original core until an unacceptable core is found. Limits of the unacceptable pavement will be placed at the midpoints of the fifteen (15) feet separating the unacceptable core from the acceptable pavement.

Packaging Details

Immediately after a core is taken, the proper identification shall be placed on the core and the driller shall insert an identification tag and the core in a plastic bag; fold down the opening and seal with plastic tape to produce a moisture-proof container.

When cores can be delivered to the Bureau of Materials within a reasonable length of time without distortion nor damage due to temperature or handling, it will be unnecessary to package the cores in plaster of paris and sawdust. However, if cores are stored in unusually warm areas without refrigeration, it will be necessary to package the cores as follows:

1. Place the plastic covered core within a mold which has been dimensioned so that approximately one inch (1") of space will surround the deepest expected core on all sides. This space shall be filled with a 1 : 1 by volume mixture of plaster of paris and sawdust. The mixture shall be placed with as low a water content as possible, in order to avoid excessive hardening time, and shall be carefully compacted to obtain a complete and dense encasement.

2. After encasing mixture has had a hardening period sufficient to render it completely self-supporting, the core may be removed from the mold. The same identification previously placed on the core shall at this time be marked on the hardened mixture and the unit placed in a safe storage area for a curing period of not less than fourteen (14) hours including time in the mold.
3. When the curing time has been completed, the cores shall be packed in cartons and shipped to the Bureau of Materials in Albany for testing.

Four (4) copies of Form BR-166 Pavement Core Record must accompany all cores sent to the Bureau of Materials in Albany for testing.

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